

ABSTRACT

To provide protein drug sustained-release microparticle preparations for injection that in the production thereof, minimize the use of organic solvents and avoid the simultaneous use of an organic solvent immiscible with water and an aqueous solution and that with respect to the obtained product, simultaneously have in vivo disappearing and sustained-release capabilities, slowly release the contained protein drug at a substantially constant rate over a period of three days or more and realize a drug content of 5% or more, excelling in dispersibility and needle passability; and to provide a process for producing the same. The protein drug sustained-release microparticle preparations for injection comprise a porous apatite or derivative thereof containing a protein drug and, provided thereon by coating or adhesion, an in vivo disappearing polymer.